In the Abstract:

Please delete the originally filed Abstract in its entirety and insert the following Abstract. A clean copy of this abstract is attached to this response following page 11 of this paper.

~~The invention relates to a heat exchanger (1) for transferring thermal energy from a warm gas flow to a cold gas flow, comprising: a first group of ducts (2) with a first connection and a second connection; a second group of ducts (3) with a third connection and a fourth connection, which group is thermally coupled to the first group of ducts; first supply means (6) for supplying the cold gas flow to the first connection; first discharge means (7) for discharging the cold gas flow from the second connection; second supply means (8) for supplying the warm gas flow to the third connection; and second discharge means (9) for discharging the warm gas flow from the fourth connection, wherein the device comprises alternating means for temporarily and repeatedly alternating in pairs the supply and discharge means on the connections.~~

A recuperator for transferring thermal energy from a warm gas flow to a cold gas flow, comprising: a first group of ducts with a first connection and a second connection; a second group of ducts with a third connection and a fourth connection, wherein the ducts of both groups extend mutually parallel; a first supply for supplying the cold gas flow to the first connection; a first discharge for discharging the cold gas flow from the second connection; a second supply for supplying the warm gas flow to the third connection; and a second discharge for discharging the warm gas flow from the fourth connection. The device provides temporarily and repeatedly alternating connections from the first supply to the fourth connection; the first discharge to the third connection; the second supply to the second connection; and the second discharge to the first connection. The device further provides a control for repeatedly changing the connections utilizing two alternating valves located at opposite sides of the combination of the first and second group of ducts.